

and ovate; heads mostly 8-15; rays 4.0 (3.5)-5.0 cm. long; disks globose to ovoid, 1.5-1.9 cm. long; achenes 4-6 mm. high.

TYPE: Swampy open woods along Mud Creek, valley of Fall Creek, Dryden, Tompkins Co., New York, *MacDaniels & Eames 1293*, August 10, 1913 (GH).

DISTRIBUTION: Moist open or partly shaded sites: stream banks, meadows, borders of woodland, open woods, etc.; Massachusetts and New Hampshire to eastern Pennsylvania and Maryland.

R. laciniata var. *bipinnata* is intermediate between the common *R. laciniata* var. *laciniata* of the eastern United States and Canada, with which it intergrades imperceptibly, and *R. laciniata* var. *digitata* (Mill.) Fiori of the northern half of the Atlantic coastal plain. From var. *laciniata* the new variety is distinguished by its bipinnatifid leaves with narrowly lanceolate or linear-lanceolate ultimate segments. From var. *digitata* it is distinguished by its larger disks (1.5 cm. or more high) and longer rays (3.5 to 6.0 cm. long).

Rudbeckia occidentalis Nutt. var. *montana* (Gray) Perdue, *comb. nov.* Based on *R. montana* Gray, Proc. Amer. Acad. 17: 217 (1881-1882).

A NEW SPECIES OF SETCREASEA FROM MEXICO

SHAMIM A. FARUQI,¹ K. L. MEHRA,² AND R. P. CELARIER³

The authors came across a new species of the genus *Setcreasea* from Mexico, collected by Edward Palmer, first identified as *S. pallida*, but later as "*S. palmeri*" probably by Rose, who, it seems, did not get a chance to describe it. Rose (1891) did report another new species, *Tradescantia palmeri*, from Edward Palmer's collections of Mexico. Though the genus *Setcreasea* was separated from *Tradescantia* at a later date (Rose 1899, 1903, Schumann et Sydow 1899) on the basis of fused corolla and epipetalous stamens, the species *T. palmeri* should not be confused with this new species, because *T. palmeri* is in no way similar to it.

¹At present: Cameron State Agricultural College, Lawton, Oklahoma.

²At present: Division of Botany, Indian Agricultural Research Institute, New Delhi, India.

³Deceased December 23, 1959.

On the strength of its dense-woolly trichomes on leaf, leaf sheath, and pedicel, in combination with thick connective, and pubescent ovary, we believe that the present taxon is a new species. The name "*S. palmeri*" is not taken into consideration to avoid a nomenclatural confusion.

Setcreasea lanceolata Faruqi, Mehra & Celarier, sp. nov.

Herba perennis, caulibus subramosis, erectis, glabratis, foliis lanceolatis, pilosis, vaginis pilosis, usque 1.8 cm longis, calycibus pilosis, ovario piloso.

Perennial herbs, 20-25 cm high; rhizomes creeping; roots arising from the underground nodes, fleshy and slender; aerial stems few, succulent, erect or slightly decumbent, glabrous, striate when dry, the internodes 5.5-8 cm long, those bearing inflorescences 6.8-10.2 cm long; lamina sessile, lanceolate, oblong or rarely elliptic, 10-15 cm long, 2.5-3 cm wide, acute at the apex, sheath prominent, up to 1.8 cm long, both the lamina and the sheath dense-woolly; inflorescences terminal subtended by 2 leaf-like bracts, bracts lanceolate, the outer 4.0 cm long, 2.0 cm wide, the inner 1.8 cm long, 2.0 cm wide; flowers several, pedicellate, the pedicels 6.0 mm long, woolly; sepals subequal, elliptic, 5.5 mm long, 2.0 mm wide; corolla "purple white with a bar of purple color in the center of the limb"⁴, gamopetalous, the tube conspicuous, 2.0 mm long; stamens 6, epipetalous, subequal, filaments barbate, the connective thick and broad; ovary tricarpellary and pubescent; stigma capitate, 3-lobed; fruit a three-chambered capsule; seeds dark gray 1-2 in each locule.

Mexico: San Louis Potosi, Edward Palmer 135 (GH type, US).

RELATIONSHIPS

Setcreasea lanceolata may show a superficial resemblance to *S. hirsuta* Markgraf (1952). It differs from *S. hirsuta* in its densely pubescent leaves, sepals and ovary. According to Markgraf's description *S. hirsuta* is pubescent only at leaf bases while its calyx and ovary are glabrous.

In spite of the differences in size and shape of leaf, and pubescence of leaf and calyx, *S. lanceolata* shares two very important characteristics with *S. brevifolia*, i.e., highly pubescent ovary and thick connectives. The evolutionary pattern indicates, that in the genus *Setcreasea* leaf size and shape have undergone many more changes than ovary and stamen. Thus, similarities of connectives and ovary may indicate a closer ancestral relationship of *S. lanceolata* and *S. brevifolia* than any other species of this genus.

⁴Annotation on the herbarium sheet.

ACKNOWLEDGEMENTS

The authors are thankful to the curators of the Gray Herbarium of Harvard University and United States National Herbarium for the loan of the herbarium specimens, and to Dr. Shiu Ying Hu of Arnold Arboretum, Harvard University, for reading the manuscript. — DEPARTMENT OF BOTANY AND PLANT PATHOLOGY, OKLAHOMA STATE UNIVERSITY, STILLWATER, OKLAHOMA.

LITERATURE CITED

- MARKGRAF, F. 1952. Eine neu *Setcreasea* aus Mexico. Mitt Bot. Staatssam München. 5: 166-167.
- ROSE, J. N. 1891. List of plants collected by Dr. Edward Palmer in Western Mexico and Arizona in 1890. Contr. U. S. Nat. Herb. 1: 91-127.
- . 1899. *Treleasea*, A new genus of Commelinaceae, Contr. U. S. Nat. Herb. 5: 207-208.
- . 1903. Studies of Mexican and Central American Plants No. 3. Contr. U. S. Nat. Herb. 8: 1-55.
- SCHUMANN, K. ET SYDOW (1899) 1901. *In Just*, Bot. Jahrb. 27 (1): 452.

THE PARASITIC BEHAVIOR OF
DASISTOMA MACROPHYLLA¹

MARTIN A. PIEHL

The first and perhaps only reference to the parasitic behavior of *Dasistoma macrophylla* (Nutt.) Raf. appears to be that of Pennell (1928), who in the course of his primarily taxonomic studies of the Scrophulariaceae observed parasitic attachments to buckeye, *Aesculus glabra* Willd., in Indiana. In the same paper he lists *Dasistoma* as one of the genera which may be restricted to a single host. That he had probably not learned of additional hosts in the years shortly after this observation is indicated by the fact that he stated simply that *Dasistoma* "is parasitic upon the roots of *Aesculus*" (Pennell, 1935, p. 405).

Further information on this point has been recently received from Professor Edgar T. Wherry of the University of Pennsylvania who relates an incident when Pennell noted disagreement in the ranges of *Dasistoma* and *Aesculus*

¹Facilities for this study were provided by the Department of Botany, University of Michigan, Ann Arbor, where the author was engaged in doctoral studies.